

Abstract

Transmission pipeline is one of transportation that quite economical to distribute natural gas from the source to the consumer. When natural gas is being transmitted through the pipeline, temperature and gas pressure will drop along the pipeline because of influenced by several factor. In this final project, Secant method will be used to analyze how much temperature drop and pressure drop when the gas is distributed in the transmission pipeline, with the temperature in the pipeline is assumed constant (isothermal) or not constant (non isothermal) and using elevation or without elevation. The results of them will be compared with the results of native data. Base on the results of distribution pressure drop and temperature drop gas in the pipeline, found the result of pressure with the condition of not constant temperature with elevation is the result that closest to the native data and has the smallest error compared the other condition, by 0,32%.

Keywords: Transmission pipeline, natural gas, Secant method, temperature drop, pressure drop.